

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An electrophoretic display panel, comprising:

an electrophoretic medium comprising charged ~~particles~~ ~~(6)~~,  
particles;

a plurality of picture elements; ~~elements having electrodes~~  
associated with each picture element for receiving a potential  
difference; and

drive means, the drive means being arranged for controlling  
the potential difference of each picture element, ~~element~~ to be a  
grey scale potential difference for enabling the particles to be  
driven to a position corresponding to image information from a  
preceding optical state, the potential difference being a sequence  
of preset potential differences having preset values and associated  
preset durations, the preset values in the sequence alternating in  
sign, each preset potential difference representing a preset energy  
sufficient to release particles present in one of said extreme

positions from their position but insufficient to enable said particles to reach the other one of the extreme positions,

wherein the drive means are further arranged for application of the grey scale potential difference for at least a subset of all drive waveforms for setting a picture element from a preceding optical state to a grey scale in two or more pulses which change the optical state of the system separated by a non-zero time interval and are arranged for prior to application of the grey scale potential difference, driving a reset potential difference of each picture element to drive the particles to occupy an extreme position which is determined based on which extreme position is closest to a position of the particles which corresponds to the image information.

2. (Previously presented) The electrophoretic display panel as claimed in claim 1, wherein the drive means are arranged for, during the non-zero time interval, applying a voltage value below a threshold voltage value below which the particles remain substantially in their position.

3. (Previously presented) The electrophoretic display panel as

claimed in claim 1, wherein the drive means are arranged for, during the non-zero time interval, applying a voltage value of substantially zero.

4. (Previously presented) The electrophoretic display panel as claimed in claim 1, wherein the drive means are arranged for controlling the potential difference of each picture element to be a reset potential difference having a reset value and a reset duration for enabling particles to substantially occupy one of the extreme optical positions.

5. (Previously presented) The electrophoretic display panel as claimed in claim 1, wherein the drive means are further arranged for application of the grey scale potential difference over more than two pulses.

6. (Previously presented) The electrophoretic display panel as claimed in claim 1, wherein the drive means are further arranged for application of the grey scale potential difference in two pulses.

7. (Previously presented) The electrophoretic display panel as claimed in claim 1, wherein the drive means are arranged for application of the grey scale potential difference in two or more pulses wherein the applied pulses have decreasing time duration as the driving time increases.

8. (Previously presented) The electrophoretic display panel as claimed in claim 1, wherein the drive means are arranged for application of the grey scale potential difference in two or more pulses wherein the applied pulses have decreasing amplitude as the driving time increases.

9. (Previously presented) The electrophoretic display panel as claimed in claim 1, wherein the drive means are arranged for application of the grey scale potential difference in more than two pulses, the pulses are separated by at least two non-zero time intervals, and the time intervals increase as the driving time increases.

10. (Canceled)

11. (Currently amended) A method for driving an electrophoretic display device comprising:

an electrophoretic medium comprising charged particles;

a plurality of picture elements, the method comprising acts of:

applying grey scale potential differences for setting a picture element to an optical state from a preceding optical state for at least a subset of all drive waveforms in two or more pulses separated by a non-zero time interval, the grey scale potential difference being a sequence of preset potential differences having preset values and associated preset durations, the preset values in the sequence alternating in sign, each grey scale preset potential difference representing a preset energy sufficient to release particles present in one of said extreme positions from their position but insufficient to enable said particles to reach the other one of the extreme positions; and

prior to application of the grey scale potential difference, applying a reset potential difference of each picture element to drive the particles to occupy an extreme position which is determined based on which extreme position is closest to a position of the particles which corresponds to the optical state.

12. (Canceled)

13. (Previously presented) The method as claimed in claim 11, wherein the act of applying the grey scale potential difference for setting a picture element to an optical state from a preceding optical state is applied in more than two pulses.

14. (Previously presented) The method as claimed in claim 11, wherein the act of applying the grey scale potential difference for setting a picture element to an optical state from a preceding optical state is applied in two pulses.

15. (Currently amended) The method as claimed in claim 11, wherein the time periods between the grey scale pulses increase with increasing drive time.

16. (Previously presented) The method as claimed in claim 11, wherein the pulse length of the grey scale pulse decreases with increasing drive time.

17. (Previously presented) A computer program comprising program code for performing the method as claimed in claim 11 when said program is executed on a computer.

18. (Previously presented) A computer program product comprising program code stored on a computer readable medium for performing the method as claimed in claim 11 when said program is executed on a computer.

19. (Canceled)

20. (Currently amended) Drive means for driving an electrophoretic display panel, said display panel, comprising:

an electrophoretic medium comprising charged particles;

a plurality of picture ~~elements~~; elements having electrodes associated with each picture element for receiving a potential difference;

~~said drive means being arranged for controlling the potential difference of each picture element to be a grey scale potential difference for enabling the particles to occupy the position corresponding to the image information, the grey scale potential~~

difference being a sequence of preset potential differences having preset values and associated preset durations, the preset values in the sequence alternating in sign, each grey scale preset potential difference representing a preset energy sufficient to release particles present in one of said extreme positions from their position but insufficient to enable said particles to reach the other one of the extreme positions, said drive means being further arranged for application of the grey scale potential difference for at least a subset of all drive waveforms for setting a picture element from a preceding optical state to a grey scale in two or more pulses which change the optical state of the system separated by a non-zero time interval and are arranged for prior to application of the grey scale potential difference, driving a reset potential difference of each picture element to drive the particles to occupy an extreme position which is determined based on which extreme position is closest to a position of the particles which corresponds to the grey scale.

21. (Previously presented) The electrophoretic display panel as claimed in claim 1, comprising a plurality of additional capacitors, at least one additional capacitor being connected to



each picture element and to one or more storage capacitor lines.

22. (Previously presented) The drive means as claimed in claim 20, comprising a plurality of additional capacitors, at least one additional capacitor being connected to each picture element and to one or more storage capacitor lines.